Annual

Water Quality Report

Water Testing Performed in 2007

City of Vallejo System, CA4810007

City of Vallejo Lakes System, CA4810021

30073-I-0002

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo ó hable con alguien que lo entienda bien.

Ang ulat na ito ay nagtataglay ng mahalagang inpormasyon. Kung kayo ay may tanong o nangangailangan ng karagdagang kaalaman ukol sa ulat na ito sa wikang Pilipino, mangyari lamang na tawagan si Jun Malit sa telepono (707) 648-4309.

The City of Vallejo welcomes this yearly opportunity to provide our customers with the Annual Water Quality Report. We have included information so you know where your drinking water comes from, how it is treated and how its quality compares to drinking water standards.

This report tells you that in 2007, after testing for more than 100 different constituents, your drinking water meets all primary and secondary standards established by the California Department of Public Health and the U.S. Environmental Protection Agency. Primary standards are health related standards where as secondary standards relate to consumer acceptance of the water supply and govern qualities such as taste, odor and color.

The tables in this report show each constituent found, the level at which they occur, how their level compares with standards and their most likely source. For more information about this report, or for any questions relating to your drinking water, please call Sue Littlefield, City of Vallejo, Laboratory Supervisor, at (707) 649-3473.

Public Participation

You are invited to participate in our public forum and voice your concerns about your drinking water. The Vallejo City Council meets on various Tuesdays, throughout the year, at 7:00 p.m. at 555 Santa Clara Street, Vallejo. You may call the City Clerk at (707) 648-4527 for specific meeting dates.

Your Water Treatment Process

The **City of Vallejo Water System** provides treated water from the Fleming Hill Water Treatment Plant, a conventional treatment plant with a forty-two million gallons per day capacity. The treatment process involves a series of steps in order to comply with the Surface Water Treatment Rule and to produce water meeting drinking water standards.

Initially, we add ozone to help remove dissolved organic matter and to aid in downstream processes. Next, the water flows to mixing basins where we add coagulants and gently agitate the water so that fine suspended particles come together and form large 'floc' particles, which settle out of the water. After this process, known as coagulation, flocculation and sedimentation, we add ozone again to disinfect and remove unwanted color, taste and odor.

At this point, the water gravity flows through multimedia filters consisting of granular activated carbon and sand in order to meet strict standards for clarity and to reduce the levels of microbial contaminants that could possibly be in the untreated source water. Again, we disinfect the water this time using chlorine. Finally, we add caustic soda to adjust the pH and alkalinity levels as well as fluoride to promote healthy teeth. Now the water is ready for delivery to our customers.

The **City of Vallejo Lakes System's** Green Valley Water Treatment Plant can treat up to one million gallons a day providing customers with drinking water meeting all drinking water standards.

First, the MIEX™ pretreatment process removes naturally occurring dissolved organic matter. This treatment, using ion exchange resin, enables us to meet the Disinfectant/Disinfection By-products Rule by sufficiently lowering the levels of total organic carbon, therefore limiting the formation of disinfection by-products such as total trihalomethanes. Total trihalomethanes are chemicals formed over time in the distribution system when dissolved organic matter combines with chlorine. Regulations require we use chlorine to disinfect surface water.

The treatment plant's conventional treatment process uses polymer to promote coagulation, flocculation and sedimentation to remove the majority of soil particles from the water. Then, the water gravity flows through multimedia filters consisting of anthracite and sand so that it will meet clarity standards required to decrease microbial contaminants and to aid the disinfection process. Depending on which water source or blend of sources we are treating (Lakes Madigan and Frey vs. Putah South Canal) we may add soda ash in order to increase alkalinity and pH. The last step of the treatment process adds chlorine to disinfect the water supply and provide continual protection in the distribution system. This treatment plant does not add fluoride to your water.

Lake Madigan Source Water for the City of Vallejo Lakes System

Your Water Sources

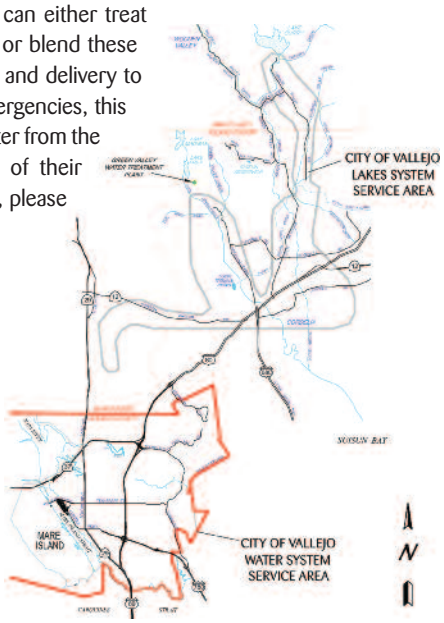
The City of Vallejo owns and operates two separate public water systems for the benefit of our customers. The City of Vallejo Water System provides drinking water to customers within the city limits, to some customers in the unincorporated areas adjacent to City boundaries and to a limited number of customers in the City of American Canyon.

The City of Vallejo Water System customers are fortunate because they enjoy an abundant water supply from two surface water sources. The Solano Project provides source water from Lake Berryessa, transported to our facilities by the Putah South Canal. The City also receives surface water from the State Water Project.

This water, from Lake Oroville, travels through the Sacramento River to the State's North Bay Aqueduct pumping facilities.
Our source water pumping and distribution facilities enable us to treat and deliver water from either one of these sources or to blend these sources before treatment at the Fleming Hill Water Plant.

The City of Vallejo Lakes System is a separate public water system with its own treatment plant and distribution system that delivers drinking water to customers residing in the Green Valley, Old Cordelia, Jameson Canyon, Suisun Valley, Willotta Oaks and Gordon Valley areas.

This system also has water available from two distinct surface water sources. In addition to the Solano Project's Lake Berryessa water delivered by the Putah South Canal, this system treats water from Lakes Frey and Madigan, which are two interconnected lakes owned by the City of Vallejo. The Green Valley Water Treatment Plant can either treat these two sources separately or blend these two sources before treatment and delivery to our customers. In case of emergencies, this system can receive treated water from the City of Fairfield. For a copy of their Consumer Confidence Report, please call (707) 428-7594.



A Message From the United States Environmental Protection Agency

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- Microbial Contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife;
- Inorganic Contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming;
- Pesticides and Herbicides, that may come from a variety of sources such as agriculture, urban storm water runoff and residential uses;
- Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, agricultural applications and septic systems; and
- Radioactive Contaminants, that can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the California Department of Public Health (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline at 1-800-426-4791.

City of Vallejo Annual **Water Quality Report** *Water Testing Performed in 2007*

PRIMARY DRINKING WATER STANDARDS - Health Related Standards

PARAMETER/CONSTITUENTS (units of measurement)	STATE MCL	PHG or (MCLG)	CITY of VALLEJO WATER		LAKES SYSTEM WATER		MAJOR SOURCES IN DRINKING WATER
			RANGE	AVG	RANGE	AVG	
INORGANICS							
COPPER at-the-tap; 90th percentile (ppm)	AL = 1.3	0.17	Please refer to the Lead and Copper Study in this report.				Leaching of house plumbing
FLUORIDE (ppm)	2	1	ND - 1.3	1	0.1 - 0.1	0.1	Water additive or natural minerals
NITRATE as NO3 (ppm)	45	45	ND - 3.1	ND	ND	ND	Runoff and leaching from fertilizer
MICROBIAL							
TOTAL COLIFORM (% positive samples)	5%	0	ND - 0.6%	ND	ND	ND	Naturally present in the environment
For the City of Vallejo Water System, no more than 5% of all samples taken during a single month may be positive for total coliform bacteria. Total coliform was not detected in the Lakes System.							
CLARITY							
TURBIDITY (NTU)	TT = 95% of samples ≤ 0.3 Maximum ≤ 1.0		100 % of samples ≤ 0.3 Maximum = 0.09		100 % of samples ≤ 0.3 Maximum = 0.27		Soil runoff
Turbidity is a measurement of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. MCL compliance is based on all samples taken each month. 100% of all samples were in compliance.							
RADIOLOGICAL							
COMBINED RADIUM 226 + 228 (pCi/L)	15	0	1.58 - 1.58	1.58	ND	ND	Erosion of natural deposits
Last sampled in 2007. The state requires us to monitor for certain substances less than once a year because their concentration does not change frequently.							
DISINFECTANT	MRDL	EPA MRDLG					
CHLORINE, Free Residual as CL2 (ppm)	4.0*	4.0*	ND - 2.1	0.8	ND - 1.3	0.5	Disinfectant for water supply
DISINFECTION BY-PRODUCTS							
TRIHALOMETHANES, TOTAL (ppb)	80*	n/a	28 - 80	48	18 - 100	41	By-products of chlorine treatment
HALOACETIC ACIDS (ppb)	60*	n/a	13 - 51	29	1.2 - 18	11	By-products of chlorine treatment
DISINFECTION BY-PRODUCTS PRECURSOR							
TOTAL ORGANIC CARBON (% Removal Ratio)	TT = Running Annual Average ≥ 1*		100 % of samples ≥ 1 minimum = 1.98		100 % of samples ≥ 1 minimum = 0.9		Decay of natural organic matter

*Compliance levels for the four parameters listed above are based on an annual running average determined quarterly.
This means that every three months, we average all the samples taken during the prior twelve month period. Results for minimum and maximum values are based on single samples.

SECONDARY DRINKING WATER STANDARDS - Aesthetics Related Standards

PARAMETER/CONSTITUENTS (units of measurement)	STATE MCL	PHG or (MCLG)	CITY of VALLEJO WATER		LAKES SYSTEM WATER		MAJOR SOURCES IN DRINKING WATER
			RANGE	AVG	RANGE	AVG	
CHLORIDE (ppm)	500	none	11 - 59	20	12 - 104	25	Natural minerals
COLOR (color units)	15	none	<2.5	<2.5	<2.5	<2.5	Natural organic matter
ODOR-THRESHOLD (units)	3	none	1.0 - 2.0	1.2	1.0 - 2.0	1.2	Natural organic matter
SPECIFIC CONDUCTANCE (µS/cm)	1,600	none	221 - 565	326	125 - 604	310	Natural minerals
SULFATE (ppm)	500	none	28 - 49	35	13 - 19	16	Natural minerals
TOTAL DISSOLVED SOLIDS (ppm)	1,000	none	138 - 353	204	78 - 378	194	Natural minerals
MONITORING FOR SODIUM and HARDNESS							
SODIUM (ppm)	none	none	7.7	7.7	51	51	Natural minerals
TOTAL HARDNESS (ppm as CaC03)	none	none	66 - 162	112	30 - 160	124	Natural minerals
TOTAL HARDNESS (grains/gallon as CaCO3)	none	none	4 - 10	7	2 - 9	7	Natural minerals

Your drinking water meets all primary drinking water standards.

DEFINITION of TERMS USED IN THIS REPORT

AL-Action Level:
The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

MCL-Maximum Contaminant Level:
The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste and appearance of drinking water.

MCLG-Maximum Contaminant Level Goal:
The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. EPA.

MRDL-Maximum Residual Disinfectant Level:
The level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.

MRDLG-Maximum Residual Disinfectant Level Goal:
The level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLGs are set by the U.S. EPA.

ND: Not detected

NTU-Nephelometric Turbidity Units:
Particles in water that make it appear cloudy

pCi/L: picoCuries per liter: A measure of radioactivity

PHG-Public Health Goal:
The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California EPA.

ppb: parts per billion or micrograms per liter (ug/L)

ppm: parts per million or milligrams per liter (mg/L)

Primary Drinking Water Standards:
MCLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Secondary Drinking Water Standards:
MCLs for aesthetic characteristics of water (such as color, taste, and odor) that may affect the consumer's acceptance of their water supply.

TT-Treatment Technique:
A required process intended to reduce the level of a contaminant in drinking water.

µS/cm-Microsiemens per Centimeter:
A measure of electrical conductivity

PRIMARY STANDARDS—LEAD and COPPER STUDY—Monitoring of Customers' Tap Water

PARAMETER/CONSTITUENTS (units of measurement)	ACTION LEVEL	PHG	City of Vallejo 90th %, Number of Homes > AL		Lakes System 90th %, Number of Homes > AL		MAJOR SOURCE IN DRINKING WATER
COPPER (ppm at the 90th Percentile)	1.3	0.17	ND	0	0.07	0	Internal corrosion of household plumbing

Every three years the City is required to sample at homeowners' faucets for lead and copper. This monitoring ensures our water is not too corrosive and does not leach unsafe levels of these metals into your drinking water. Compliance measurements are from the 90th percentile (the highest level measured from 90% of the homes). Lead was not detected from either water system. The Lakes System was last sampled in 2005 and the City will repeat the monitoring during June through September of this year. The City of Vallejo homes were last sampled in 2006 and will need to be resampled in 2009. We are required to sample from the same homes each time, so City staff will be calling upon the customers that helped us in the past. We greatly appreciate our customers' efforts in helping us prove our water does not leach unsafe levels of lead and copper from home plumbing.

Special Health Concerns

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

Source Water Assessments and Vulnerability Summaries

Source Water Assessments evaluate the quality of the water used as a drinking water supply for local communities and examine the water's vulnerability to possible contamination from activities within the watershed. Source Water Assessments were completed in 2001 for the Putah South Canal and Lakes Frey and Madigan and in 2002 for the North Bay Aqueduct (Sacramento Delta). The Solano Project Watershed Sanitary Survey was updated in 2006 and the City is currently updating a Sanitary Survey for the Lakes System watershed. The adjacent table summarizes the vulnerability of each water source and provides a contact name if you would like copies of the complete assessments.

Vulnerability Assessments Table

Source	Most Vulnerable Activities	Moderately Vulnerable Activities	Contact
Lakes Frey and Madigan	Illegal body contact* Wild animal access* Agricultural drainage*	Other animal operations Wildfires	Erik Nugteren City of Vallejo (707) 648-4482
Putah South Canal	Illegal activities/ Dumping Herbicide applications	Road/Streets Storm drain discharge Recreational area	Alex Rabidoux Solano County Water Agency (707) 451-6090
North Bay Aqueduct	Grazing animals* Runoff from grazing land	Runoff from agricultural land	Alex Rabidoux Solano County Water Agency (707) 451-6090

*Associated with detected contaminants